DOCUMENT RESUME

ED 063 257 SP 005 704

AUTHOR	Fuller, Frances F.; Parsons, Jane S.
TITLE	Current Research on the Concerns of Teachers.
INSTITUTION	Texas Univ., Austin. Research and Development Center for Teacher Education.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
PUB DATE	72
CONTRACT	OEC-6-10-108
NOTE	18p.; Paper presented at the Annual Meeting of the American Educational Research Association, (Chicago, Ill., April 1972)
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Educational Development; *Educational Research; *Teacher Attitudes; *Teacher Role; *Teaching Quality

ABSTRACT

This paper familiarizes the educational community with the research on teacher concerns that has taken place since the publication of Fuller's 1969 article "Concerns of Teachers: A Developmental Conceptualization" (SP 003 919). Two studies are described concerning reliability of information for the Teacher Concerns Statement and the establishment of the bipolar nature of the self-benefit-pupil-benefit continuum of teacher concern. More than 1,500 preservice and in-service teachers have been administered an open-ended questionnaire titled Teacher Concerns Statement. Scores for the analysis reported in this paper are based on a six category system. These categories include concerns about a) role orientations, b) self-adequacy as a teacher, c) whether the teacher is liked by his pupils and what his pupils are like, d) whether pupils are learning what is taught, e) whether pupil's individual learning needs are being met, and f) improvement of the educational system. Results of the reliability and factor analytic study emphasized the need for the development of a machine-scorable instrument, the character of which would eliminate the problems associated with coder reliability. Appendixes and an 11-item bibliography are included. (MJM)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

ED 063257

Working Paper

27.3

Current Research on the Concerns of Teachers[1]

SP
N-NPD

Frances F. Fuller and Jane S. Parsons[2]

Research and Development Center for Teacher Education

The University of Texas At Austin

Paper Presented at the 1972 Annual Meetings of the American Educational Research Association

The purpose of this paper is to familiarize the educational community with the research on teacher concerns that has taken place since the publication of the article "Concerns of Teachers: A Developmental Conceptualization" (Fuller, 1969). In this paper Fuller presented her rationale and evidence for dividing the concerns voiced by teachers into two basic types. Labels for these two types are presently conceived as opposite poles along a continuum of teacher concerns: Concerns About Self-Benefit, characterized by self-survival statements; and Concerns About Pupil-Benefit, characterized by concerns about the needs of pupils.

In addition to a description of the instrumentation and scoring procedures used to assess the concerns of teachers in the analyses to be

---

[1]The research discussed herein was supported in part by the U.S. Office of Education Contract OE 6-10-108 and the Research and Development Center for Teacher Education.

[2]The authors wish to acknowledge the assistance of Gary Borich, Gail Brown, Carol Case, Heather Carter, Carolyn Dallmeyer, Darlene Flack, Elizabeth Richards, John Sheffield, Don Taylor, and Mary Jane Woods.

SP005704

two studies will be discussed.
presented in this paper, The first reports reliability information for the Teacher Concerns Statement. The second is primarily concerned with establishing the bipolar nature of the Self-Benefit--Pupil-Benefit Continuum of Teacher Concerns.

Over the past three years, our assessment of teacher concerns has become increasingly systematic. More than 1500 preservice and in-service teachers have been administered an open-ended questionnaire developed by Fuller and Case, 1970, titled "The Teacher Concerns Statement." The directions for this instrument are straightforward, the underlying assumption being that the best way to find out what concerns a teacher is to ask for a frank answer: "WHEN YOU THINK ABOUT YOUR TEACHING, WHAT ARE YOU CONCERNED ABOUT? (Do not say what you think others are concerned about, but only what concerns you now.) Please be frank. Please place a check by the thing that concerns you most."

A great deal of time and effort has been expended in determining (1) just what should constitute a codeable content unit and (2) the location of these units along the Self-Benefit--Pupil-Benefit Concerns Continuum. Five different content unit coding systems have been developed and used at some time during the past five years. The one currently in use--a six category system developed and revised by Fuller and Case (1970, 1971)--is the one upon which scores for the analyses reported in this paper are based.

In order to impart the "flavor" of the six categories, the following brief description of each is presented. (1) Concerns about Role Orientation (Code R) has to do with expectations or concerns about

teaching supervisors', cooperating teachers, principals, pupils' parents, and with the psychological, social and physical environment of the classroom, school, and school community. (2) Concerns About Self-Adequacy as a Teacher (Code A) includes concerns about subject matter competency in maintaining classroom control. Both codes R and A fall at the Self-Benefit end of the Concerns Continuum. (3) The Code L category houses two types of concerns that are distinctly different in terms of their locations on the Self-Benefit--Pupil-Benefit Concerns Continuum: Concerns About Whether the Teacher is Liked by His Pupils and Concerns About What His Pupils Are Like. Concerns about being liked are clearly Self-Benefit Concerns, while concerns about what pupils are like are more difficult to locate. The latter may prove to be transitional between the two poles. However, since the majority of content units coded L are of the former (Self-Benefit) type, Code L will be viewed primarily as a Self-Benefit Concerns Code. (4) Concerns About Whether Pupils Are Learning What Is Being Taught (Code T) refers to concerns about the pupils' mastering the "fundamentals." (5) Concerns About Whether the Pupils' Individual Learning Needs Are Being Met (Code N) includes concerns about individualizing instruction to meet the educational needs and characteristics of unique groups or individuals. (6) Concerns About Improvement of the Educational System (Code I) includes concerns that apply to a single classroom as well as those that are more general in scope. A necessary ingredient is the explicit or implicit willingness on the part of the teacher to invest his own resources (time, equipment, effort) in producing or implementing the desired improvement.

Study I, Reliability of the Teacher Concerns Statement

Reliability was studied using a correlational analysis of individual subject proportion scores for each of the six concerns codes described earlier. Subject proportion score for each of the six concerns codes on a single protocol is defined as the number of content units scored a specific code, divided by the total number of coded content units for that protocol. The relationship between code frequencies and code proportions is shown in the example below:

	Code Frequency		Code Proportion
Code R	0		.00
Code A	2		.50
Code L	1		.25
Code T	0		.00
Code N	1		.25
Code I	0		.00
Total Number of Coded Content Units	4	Sum of the Proportion Scores	1.00

Study I Results

Rater Stability

Rater stability correlations were based upon the codes of two raters scoring a set of 50 protocols twice, with two weeks intervening. These 50 protocols included 20 from experienced teachers, 16 from student teachers, and 14 from preservice teachers with no formal classroom teaching experience. A set of protocols that varied in terms of subject teaching experience was selected in order to enhance the probability of obtaining scores in all six concerns code categories. Earlier research (See Appendix I) indicates that for a group of 417 preservice and inservice

teachers, Codes R, A, and L are more typical of preservice teachers than of inservice teachers, and that Codes T, N and I concerns are more characteristic of inservice teachers than of preservice teachers (all p's $<.005$).

Table 1

Teacher Concerns Statement Coder Stability Coefficients

Teacher Concerns Statement Codes	Coder 1 Stability Coefficients	Coder 2 Stability Coefficients
R	.94	.76
A	.75	.68
L	.65	.70
T	.55	.53
N	.77	.69
I	.55	.53

Note.--Two coders scoring a single set of 50 protocols twice (two weeks intervening).

As can be seen in Table 1, the stabilities for both coders are relatively high for this kind of instrument. Only Codes T and I appear to require improvement.

Interrater Reliability

The interrater reliability information presented in Table 2 is based upon the average of two sets of rater agreement correlations for the same group of 50 protocols. The agreement correlations for the

two raters' initial scoring of the protocols was averaged with the agreement correlation for the two raters' final scoring of the protocols.

Table 2

Teacher Concerns Statement Interrater Reliability

Teacher Concerns Statement Codes	Coefficients of Interrater Reliability Between Two Coders
R	.93
A	.48
L	.14
T	.25
N	.59
I	.51

Note.--The reliability coefficients are based upon the average of two sets of rater agreement coefficients for a group of 50 protocols (using the Z transformation). The reliability coefficient for Code R is an underestimate.

Discussion of Study I Results

These data indicate that the interrater agreement for Codes L and T is unsatisfactory. There are at least three related explanations for interrater unreliability in this instance. The first is rater instability. Although the two raters have equally high stabilities for Codes L and T, their instabilities may result from different, rater-

unique, kinds of coding errors. In such a case, the rater agreement correlations would be lower, perhaps significantly lower, than either of the two rater stability coefficients.

The second explanation, one which might be directly related to, and perhaps the cause of the first one, is lack of precise and understandable definitions of the uniqueness of the various content codes, especially of Codes L and T.

A third explanation is that the instructions for determining the size of content units is unclear. That is, one coder may see two adjacent Code L's, while a second coder may see only one Code L in the same written statement.

We suggest that all three explanations are relevant to the reliability of the Teacher Concerns Statement. Examination of the 50 protocols has provided evidence about the first explanation, rater instability. Coder 2 tends to code many of the Coder 1's T Codes as A Codes. This tendency decreases rater agreement for both Codes A and T. This systematic difference between the two coders is also evidence in support of the second explanation, lack of explicit definition of the uniqueness of concerns codes.

Examination of the protocols also indicates that the third explanation, disagreement about what constitutes a content unit, is also appropriate. Two coders occasionally differ in the number of adjacent like-code content units into which they divide a section of protocol. Even individual coders demonstrate this same kind of inconsistency in the process of coding and, later, recoding a set of protocols .

Study II, Factor Analysis of the Teacher Concerns Statement

The second study was executed to shed light upon two general questions: first, "Is the Teacher Concerns Statement, scored as described, tapping a bipolar factor, the ends of which might appropriately be called "Self-Benefit Concerns" and "Pupil-Benefit Concerns"? At this time our primary concern is with establishing the bipolarity of the Self-Benefit--Pupil Benefit Continuum of Teacher Concerns. It is only later that identification and ordering of the internal points of that continuum will be undertaken. On the basis of the content of the six concerns codes, codes R, A, and L have been placed at the Self-Benefit pole of the Concerns Continuum; codes T, N, and I at the Pupil-Benefit pole. Evidence in support of this bipolarity would be provided if Self-Benefit Concerns Codes and Pupil-Benefit Concerns Codes load highly upon single factors, their loadings having opposite signs.

The second research question, "Are scores on the various concerns codes related to amount of teaching experience?" has antecedents in a previous study. This study, reported in Appendix 1, indicates that all codes, with the exception of T, are related to amount of teaching.

Study II Results

A principal components factor analysis followed by a normalized varimax rotation was performed on the Teacher Concerns Statement scores for over 1500 preservice and inservice teachers. All factors with eigenvalues greater than 1.0 were rotated toward simple structure. The five factors accounted for 92% of the variance. The accompanying intercorrelation matrix can be found in Appendix 2.

Table 3

		Inexperience Factor 1	Self-Benefit--Pupil-Benefit Factor 2	Liking Factor 3	Self-Benefit--Pupil-Benefit Factor 4	Role Orientation Factor 5
Code R	1	.0483	-.0427	.0017	-.0381	.9943
Code A	2	.2975	-.6522	-.2284	-.6134	-.1699
Code L	3	.0652	-.0577	.9907	-.0828	-.0272
Code T	4	.1077	.9626	-.1300	-.1513	-.1168
Code N	5	-.0867	-.0509	-.1411	.9760	-.0974
Code I	6	-.8987	-.0509	-.0353	-.1121	.0109
Group Membership	7	-.7975	.0257	-.0502	.2355	-.0671

Note.- N=1560 teachers (251 inservice, 1309 preservice).

Evidence relevant to the first question is shown in factors 2 and 4. In these factors the bipolarity is between one Self-Benefit Concerns Code and one Pupil-Benefit Concerns Code. Because of the weaknesses in reliability of Code T, as noted earlier, the investigators place greater faith in the stability of Self-Benefit--Pupil-Benefit Concerns bipolarity as defined by Factor 4: Concerns About Self-Adequacy as a Teacher (Code A) vs. Concerns About Whether the Pupils' Individual Learning Needs Are Being Met (Code N) than as defined by Factor 2: Concerns About Self-Adequacy as a Teacher (Code A) vs. Concerns About Whether Pupils Are Learning What is Being Taught (Code T). However, the bipolarity shown in

both these factors is clear-cut and consistent with the predictions.

Only Factor 1 provides evidence relevant to the second question, "Are scores on the various concerns codes related to amount of teaching experience?" Group membership (coded 1 = preservice teacher; 2 = inservice teacher) loads highly and negatively on Factor 1, as does Code I, Concerns About Improving the Educational System. The fact that group membership and Code I have high like-sign loadings on a single factor is consistent with the results of an earlier study (see Appendix I) in which inservice teachers as a group had significantly higher mean Code I scores than did preservice teachers.

Implications of Studies 1 and 2 for Future Research

The results of the reliability study in combination with information from the factor analytic study brought us to a decision point between two alternatives: (1) Devote considerable time and effort in improving the reliability of the Teacher Concerns Statement by a) revising the Fuller-Case six category coding system or b) developing a similar content coding system, as well as c) devoting time to the training of coders; (2) Develop a machine-scorable instrument, the character of which would eliminate the problems associated with coder reliability.

After having spent the last six months working on the development of an exhaustive content category system for the Teacher Concerns Statement (Brown, Fuller and Parsons), it has become apparent that the psychological sophistication and special training required to use it reliably make its implementation impractical. Therefore, we are planning to embark upon the development of a two-alternative forced-choice questionnaire for the assessment of teacher concerns. This instrument will be designed so that the subject is forced to choose many times between a Self-Benefit Concerns alternative and a Pupil-Benefit Concerns alternative matched for social desirability. Probably the most difficult challenge will be the development of Self-Benefit Concerns--Pupil-Benefit Concerns paired items that are matched with regard to social desirability. An important aspect of the socialization of teachers is repeated exposure to the belief that concerns about self-adequacy are less desirable than concerns that center upon pupil learning.

Conclusion

The development of a structured, machine-scorable instrument to assess teacher concerns is advantageous for two reasons. First, such an instrument as proposed in the Future Research section would both increase the ease and decrease the cost (both in man hours and in dollars) involved in preparing raw data for statistical analyses. Presently each Teacher Concerns Statement protocol must be hand-scored by a trained coder. The second advantage of the proposed instrument, and the more important one in terms of research design, is the automatic elimination of two sources of scoring unreliability--coder instability and interrater unreliability. Since interpretations of analyses can be only as stable as the stability of the measures upon which the analyses are run, the reliability of these measures is of utmost importance.

Once the proposed forced-choice instrument has been developed and has been shown to be reliable the following kinds of validation studies are planned.

1. A large construct validation study is anticipated in which three groups of subjects will be used: preservice teachers with no classroom teaching experience, student teachers, and inservice teachers. A battery of performance and personality measures, chosen on the basis of stability and validity information, administered in conjunction with the Teacher Concerns Instrument - Quick-Scoring (T-CIQ), will be factor analyzed in order to understand better what is being measured. Instruments being considered for this study include the Dogmatism Scale (Rokeach, 1960), the FIRO-B (Schutz, 1958), the Holtzman Inkblot Test (Holtzman,1961) and the Teaching Anxiety Scale (Parsons, in press). An adequate measure of teaching competence is needed (but not yet found), for we hypothesize a positive relationship between Pupil-Benefit Concerns and high teaching competence.

2. A series of studies are planned to discover the degree to which teacher concerns are maleable, either 1) as a result of changing the physical or psychological setting of a teacher, or 2) by teacher acquisition of training or information.

3. A study is being planned to determine whether education courses in which attempts are made to match the sequencing of curricula to the concerns of teachers enrolled in them produce greater involvement in or satisfaction with these courses than do courses for which this is not done.

Appendix 1

The reason the following analysis appears in an appendix rather than in the body of this paper is that the Concerns Statement scores used were code frequency scores. Recently the use of frequency scores has been discontinued since it permits vast variation in the amount of data contributed to any given analysis by individual subjects. The range in the number of coded content units for Teacher Concerns Statement Protocols has ranged from 1 to 14. The analysis reported here will be redone using proportion scores before this paper is submitted for publication.

The purpose of this study was to discover which, if any, of the Teacher Concerns Statement codes discriminate between preservice and inservice teachers. It was hypothesized on the basis of a literature search that preservice teachers as a group would have higher mean scores than inservice teachers on Codes R, A, and L. Conversely, inservice teachers as a group were expected to have higher mean scores than preservice teachers on Codes T, N. and I.

The results can be seen in Table 4.

Table 4

Teacher Concerns Statement Mean Score Differences for Preservice and Inservice Teachers

Code	Preservice Teacher Mean	Inservice Teacher Mean	Difference	F Ratio	Level of Sig.
R	1.09	.03	1.06	169.16	*
A	.62	.25	.37	15.69	*
L	.39	.18	.21	8.24	*
T	.50	.64	.14	1.12	n.s.
N	.38	1.12	.74	21.20	*
I	.09	.74	.65	19.71	*

Note.- * $p < .005$: df = 413

Appendix 1 continued

An analysis of variance was used to compare the Teacher Concerns Statement mean code scores for preservice teachers (N = 85) and inservice teachers (N = 332). As can be seen in Table 4, all codes except Code T discriminated between the two groups. All differences were in the predicted directions.

In order to provide a bridge between this study and Study II reported earlier, correlations between code frequency scores and code proportion scores for a sample of 50 Teacher Concerns Statement protocols follow: R = .66; A = .82; : = .74; T = .70; N = .63; I = .60. These protocols were from a heterogeneous sample in terms of amount of teaching experience. As can be seen, the correlations are high, but by no means high enough to assume that code frequencies and code proportions are equivalent measures of the same variables.

Appendix 2

Intercorrelation Matrix Accompanying Table 3

	Teacher Concerns Statement Codes						Group Membership
	R	A	L	T	M	I	
R	1.0000	-.0910	-.0124	-.1402	-.1336	-.0555	-.0760
A		1.0000	-.1041	-.4393	-.4917	-.2230	-.2092
L			1.0000	-.1566	-.2141	-.1011	-.0939
T				1.0000	-.2206	-.1527	-.0446
M					1.0000	-.0622	.2143
I						1.0000	.4635
Group Membership							1.0000

Note.- N=1560 teachers (251 inservice, 1309 preservice).

REFERENCES

Brown, Gail; Fuller, Frances and Parsons, Jane S. Preliminary Coding for the Concerns of Teachers, The University of Texas R&D Center for Teacher Education Report Series, in press.

Fuller, Frances F. "Concerns of Teachers: A Developmental Conceptualization," American Educational Research Journal, Vol. VI, No. II (1969), 207-226.

Fuller, Frances F.; Bown, Oliver H. and Peck, Robert F. Creating Climates for Growth, The Hogg Foundation for Mental Health, The University of Texas at Austin, 1967, 35 pp.

Fuller, Frances F. and Case, Carol. A Manual for Use with the Teacher Concerns Statement, The University of Texas R&D Center for Teacher Education, 1970 (mimeo).

Fuller, Frances F. and Case, Carol. A Manual for Scoring the Teacher Concerns Statement, The University of Texas R&D Center for Teacher Education, 1971 (revised).

Fuller, Frances F.; Pilgrim, Geneva Hanna and Freeland, Alma M. "Intensive Individualization of Teacher Preparation," In Mental Health and Teacher Education, 46th Yearbook, Association for Student Teaching. Dubuque, Iowa: Wm. C. Brown Co. Inc., 1967, 151-187.

Holtzman, W. H., et al. Inkblot Perception and Personality--Holtzman Inkblot Technique, Austin, Texas: University of Texas Press, 1961.

Parsons, Jane S. Teaching Anxiety Scale Manual, The University of Texas R&D Center for Teacher Education Report Series, in press.

Parsons, Jane S. Anxiety and Teaching Competence. Ed.D. Dissertation, Stanford University, 1970.

Rokeach, M. The Open and Closed Mind, New York: Basic Books, 1960.

Schutz, W. C. FIRO A Three-Dimensional Theory of Interpersonal Behavior, New York: Rinehart and Co., Inc., 1958.

Appendix 3

Factor Analysis of Teacher Concerns Statement Codes

	High Code I	Self-Benefit--Pupil-Benefit	Liking	Self-Benefit--Pupil-Benefit	Role Orientation
Code	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
R	-.0295	.0613	-.0020	-.0300	.9970
A	-.2664	.5690	-.2066	-.7304	-.1581
L	-.0559	.0772	.9935	-.0510	-.0191
T	-.0998	-.9822	-.0942	-.0771	-.0870
N	-.1040	.1930	-.1917	.9471	-.1222
I	.9957	.0625	-.0515	.0148	-.0304

Note.-N=1560 teachers (251 inservice, 1309 preservice).

Code R-Concerns About Role Orientation
Code A-Concerns about Self-Adequacy as a Teacher
Code L-Concerns About Whether the Teacher is Liked by His Pupils
Code T-Concerns About Whether Pupils Are Learning What Is Being Taught
Code N-Concerns About Whether the Pupils' Individual Learning Needs Are Being Met
Code I-Concerns About Improvement of the Educational System